

**ARGUMENTS****Rejection of Claims on Art Grounds in the 3 July 2002 Office Action, and Traversal Thereof**

In the 03 July 2002 Office Action, claims 1-14 have been rejected on prior art grounds, under 35 U.S.C 102, as follows:

Claims 1-14 are rejected under 35 U.S.C. 102(a) as being anticipated by Fournier (6,167,673).

**Claim 1**

Examiner cites Fournier as having disclosed an integrated, monopole, reinforcement sleeve system comprising at least one pair of complementary hemi-sleeves. However, Fournier in no way teaches the *reinforcement* of monopoles with complementary hemi-sleeves as claimed in the present invention. Overall, Fournier teaches an improved design structure for a complete utility pole; by contrast, the present invention is designed specifically for the reinforcement of existing designs or structures of monopoles and is attachable thereto completely on the exterior of the pole.

Thus, Fournier does not teach a reinforcing sleeve with mounting support incorporated, as the present invention specifies and clearly describes.

Specifically, Col 7, line 32-38 are cited as prior art describing complementary hemi-sleeves:

"FIG. 10 illustrates how an accessory, such as a luminaire 246, is assembled to the utility pole 110. The luminaire 246 includes a pair of diametrically opposed electric lights 248 supported by a structure 250 extending radially outwardly from a central sleeve 252. The sleeve 252 is formed of two semi-circular symmetrical portions adapted to be assembled together about the envelope 114 by means of bolts or the like. The symmetrical portions

are provided with lateral mounting flanges (not shown) through which the bolts are inserted to retain the two symmetrical portions together.”

Specifically, Col 2, lines 14-18 are cited as prior art providing integrated monopole reinforcement:

“According to a further general aspect of the present invention, there is provided an accessory for use with a utility pole having at least one upper pole section resting on a lower pole section, said accessory comprising a sleeve portion adapted to fit snugly about an outer surface of the utility pole, and spacer means extending inwardly from an inner surface of said sleeve portion for engagement between said upper and lower pole sections.”

However, examiner’s citations from Fournier describe a sleeve mount for mounting an accessory, such as a luminaire, to a monopole. *Fournier makes no description of using such accessory mount as a reinforcement sleeve for the monopole*, nor teaches the reinforcement of the monopole to lateral stresses in any way. Typically, the addition of appurtenances creates additional loads and stresses on a monopole, thereby introducing weakened points that are potentially subject to failure of the pole when attachments or appurtenances such as accessories and accessory mounts are added to the monopole. *Furthermore, the accessory sleeve mount as described by Fournier must be positioned at joints in the monopole as described by Fournier to be held in place.* Attachment of mountings to a monopole at its joints, which are typically weak points in the pole to begin with, contributes to additional weakening of the monopole at those locations, which teaches away from the present invention.

Notably, the *sleeve mount describe by Fournier in fact separates the adjacent sections of the monopole*, and thus *contribute to weakening* the monopole's ability to resist lateral stresses. *The present invention, in contrast, is affixed to the monopole at any position along the monopole and without the need to insert into a joint, so as to provide the most reinforcement possible. In fact, the present invention provides the complementary hemi-sleeves and flanges for attachment for the purpose of reinforcement of the monopole without creating or causing any separation or disruption in the monopole surface; the attachment is completely external to the pole and does not penetrate the monopole surface for attachment.*

Overall, Fornier teaches an improved design (structure) for a complete utility pole; by contrast, the present invention is designed specifically for the reinforcement of existing designs or structures of monopoles and is attachable thereto completely on the exterior of the pole.

Fornier teaches an integrated new pole design composed of inner structure (steel or could be aluminum) and envelope of insulated material such as fibrous cement, polymeric material, etc. The envelope helps to insulate the inner metallic structure and reduce corrosion. The envelope covers the entire length of the pole, which teaches away from the present invention. The main objective of the envelope is to insulate the inner structure and byproduct provides additional secondary load carrying capacity and corrosion protection to the inner structure. The material used for envelope indicates that envelope can only carry relatively small load, such as an attachment to the pole.

By contrast, the reinforcing sleeves of the present invention (steel or aluminum) are *used to reinforce overstressed locations of existing poles* (steel, aluminum, concrete, or

wood). The sleeves are major load-carrying elements. They can be designed to carry loads even larger than the existing structure. The sleeves are not intended for insulation or corrosion protection but mainly for strength and load-transfer.

The "sleeves" of Fournier refers to the device for mounting accessories on his integrated utility poles. The sleeves (Col. 7, lines 28-38) are used for supporting accessories not for providing any strength to the integrated pole and in fact weaken it as set forth hereinabove. By contrast, the sleeves of the present invention provide to the main reinforcing element in the design of the present invention. The sleeves are the elements that provide the strength for externally reinforcing a monopole without penetration or separation of the pole.

In summary, the two inventions are fundamentally different. Our invention deals with the real problem of upgrading existing-poles or increasing their strength (existing design applications). Fournier invention deals with the development of new utility poles that has improved features (new design application).

Therefore, Fournier in no way teaches the *reinforcement* of monopoles with complementary hemi-sleeves as the present invention does.

Examiner also cites Col 5, lines 38-47 as prior art describing use of a non-slip filler:

"As seen in FIG. 4, an elastomeric material 72 may be disposed at selected locations between the inner structure 12 and the envelope 14 for ensuring gradual and partial transfer of loads therebetween. For instance, a neoprene foam could be injected in specific areas between the inner structure 12 and the envelope 14. Alternatively, a thick strip of a resilient polymeric material having an adhesive coating could be mounted in an

axial or spiral fashion about the inner structure 12 to effect partial and controlled transfer of loads between the inner structure 12 and the envelope 14.”

As set forth in the foregoing, applicant asserts that Fournier does not teach the invention according to claim 1 and that teaching the incorporation of a non-slip filler in a telescoping utility pole does not make the present invention obvious.

#### Claim 2

The examiner cites col 7, lines 35-38 as teaching that the sleeves include flanges for fastening the sleeves to the pole flanges of stepped monopoles. However, examination of the cited passages does not reveal the use of flanges for fastening the sleeve to pole flanges as in the present invention, but rather the use of a mounting collar to evenly distribute the weight of and evenly support a superior segment of the monopole with respect to an inferior segment.

“A collar 254 extends inwardly from an inner circumference of the sleeve 252 for insertion at the interface or junction of the bottom and intermediate tubular outer segments 136 and 138. The top and bottom surfaces of the mounting collar 254 extend in parallel planes, which are perpendicular to a longitudinal axis of the central sleeve 252, thereby ensuring that the intermediate tubular outer segment 138 be evenly supported relative to the bottom tubular outer segment 136.”

#### Claim 7

Examiner cites Fournier as having described the placement of accessory sleeves at predetermined, select position on the monopole for optimal reinforcement. However, as

argued for claim 1 above, the placement of accessory sleeves according to the invention of Fournier actually weakens the monopole and placement is limited to adjacent section joints. Thus, the accessory sleeve as described by Fournier cannot be used to optimally reinforce the monopole.

#### Claim 8

The examiner has correctly indicated that the at least one pair of complementary hemi-sleeves are being claimed in claim 8 as multiple pairs of complementary hemi-sleeves that are attachable to a monopole in different locations along the length of the pole. No substantive argument for specific rejection of claim 8 is asserted by the Examiner; as such, applicant argues that claim 8 is allowable, either based on the arguments supporting the allowance of claim 1 or if claim 8 were rewritten in independent form including all limitations of preceding claims from which it depends.

#### Claims 13 and 14

The examiner cites Fournier as having described a sleeve with an incorporated mounting support.

Specifically, the examiner cites col 6, lines 4-10:

“An annular support plate 96 is welded on the outer surface of the bottom tubular inner segment 16 above the mounting plate 88 to support the envelope 14. Reinforcement plates 98 are uniformly circumferentially distributed between the annular mounting plate 88 and the reinforcement plate 98 to transfer loads therebetween. “

In this description, Fournier is teaching how a *bottom segment is designed to support a superior envelope, not a reinforcing sleeve with an incorporated mounting support*, as the present invention teaches.

And col. 7, lines 15-20:

"In this case, the respective casings of the transformers would be distributed about a central pole section (not shown) mounted between two segments of the inner structure 112. The casings could be supported on a circular platform (not shown) secured to the central pole section."

In this prior art description, Fournier teaches a circular platform support for an accessory that is *mounted between two segments of the monopole, not a mounting support incorporated into a reinforcing sleeve*, as the present invention teaches.

Thus, Fournier does not teach a reinforcing sleeve with mounting support incorporated, as the present invention specifies and clearly describes.

As set forth in the foregoing, applicant asserts that Fournier does not teach the invention according to claim 1 from which claims 2-14 depend. As such, applicant asserts that claims 1-14 are distinguishable and in condition for allowance.

Claims 1-14 are asserted to be in patentable condition. Allowance of these claims is hereby respectfully requested. In the event that the Examiner finds additional minor modifications that would place these claims in allowable condition, the Examiner is respectfully requested to make telephonic contact with the Attorney of Record to discuss and make changes via Examiner's Amendment to place the claims in condition for allowance.

The above rejections of the claims 1-14 on the stated art and utility grounds are traversed, and consideration of the patentability of the claims 1-14 is requested, in light of the foregoing remarks. Favorable action is therefore requested.

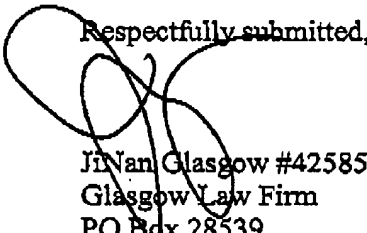
### **CONCLUSION**

In view of the foregoing, claims 1-14 constituting the claims pending in the application, are submitted to be fully patentable and in allowable condition.

If any issues remain outstanding, incident to the allowance of the application, Examiner Simone is respectfully requested to contact the undersigned attorney at (919)-664-8222 or via email at [jnang@trianglepatents.com](mailto:jnang@trianglepatents.com) to discuss the resolution of such issues, in order that prosecution of the application may be concluded favorably to the applicant, consistent with the applicant's making of a substantial advance in the art and particularly pointing out and distinctly claiming the subject matter that the applicant regards as the invention.

This Office Action response is submitted via fax on September 19, 2002 to the official group fax number 703.872.9310.

Respectfully submitted,



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